In The Claims:
This listing of the claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) An organic light-emitting diode (OLED) display system having addressable pixels on a substrate, the pixels having performance attributes, and a control circuit for controlling the pixels of the display device, comprising:

a) an array of ~~one or more~~ OLED pixels forming a display device;

b) an additional OLED reference pixel external to the display device and located on a common substrate with the display device, and connected to the control circuit, the additional OLED reference pixel having the same performance attributes as the ~~one or more~~ OLED pixels, the additional OLED reference pixel having a voltage sensing circuit including a transistor connected to one of the terminals of the additional OLED reference pixel for sensing the voltage across the additional OLED reference pixel to produce a voltage signal representing the voltage across the additional OLED reference pixel;

c) a measurement circuit connected to the voltage signal that represents the voltage across the additional OLED reference pixel to produce an output signal representative of the performance attributes of the additional OLED reference pixel;

d) an analysis circuit connected to the measurement circuit to receive the output signal, compare the performance attributes with predetermined performance attributes, and produce a feedback signal in response thereto; and

e) the control circuit being responsive to the feedback signal to compensate for changes in the output of the array of OLED pixels.

2. (Currently Amended) The OLED display system claimed in Claim 1, wherein the output of the array of OLED pixels changes with temperature, and further comprising a temperature sensor for generating a temperature signal and wherein the control circuit is also responsive to the temperature signal to calculate the correction signal.

3. (Original) The OLED display system claimed in Claim 1, wherein the control circuit further includes a lookup table containing corrected control signals for controlling the pixels of the display.

4. (Currently Amended) The OLED display system claimed in Claim 1, further comprising a plurality of additional OLED reference pixels and measurement circuits connected to the analysis circuit.

5. (Currently Amended) The OLED display system claimed in Claim 4, wherein the OLED display includes different types of OLED pixels in the array having different performance attributes and the additional OLED reference pixels include a pixel of each of the different type.

6. (Currently Amended) The OLED display system claimed in Claim 5, wherein the types of OLED pixels in the array include OLED pixels of different colors.

7. (Currently Amended) The OLED display system claimed in Claim 4, wherein the additional OLED reference pixels include multiple identical OLED reference pixels whose results are combined whereby the measured performance attribute is more accurately measured.

8. (Currently Amended) The OLED display system claimed in Claim 1, wherein the analysis circuit compares the additional OLED reference pixel performance attributes to a model of OLED pixel behavior.

9. (Currently Amended) The OLED display system claimed in Claim 1, wherein the analysis circuit compares the additional OLED reference pixel attributes to empirical data relating to the performance of an exemplary OLED display.

10. (Currently Amended) The OLED display system claimed in Claim 1, wherein the analysis device compares the additional OLED reference pixel attributes to historical OLED reference pixel attribute data.

11. (Currently Amended) The OLED display system claimed in Claim 1, wherein the measurement circuit is integrated on the same substrate as the additional OLED reference pixel.

12. (Currently Amended) The OLED display system claimed in Claim 1, wherein the analysis circuit is integrated on the same substrate as the additional OLED reference pixel.

13. (Currently Amended) The OLED display system claimed in Claim 1, wherein the feedback control circuit is integrated on the same substrate as the additional OLED reference pixel.

14. (Canceled)

15. (Original) The OLED display system claimed in claim 1, wherein the control circuit controls the voltage applied to the entire display device.

16. (Currently Amended) The OLED display system claimed in claim 1, wherein the control circuit controls the voltage applied to groups of OLED pixels in the array on the OLED display.

17. (Original) The OLED display system claimed in claim 1, wherein the control circuit modifies a response to code values used to represent OLED pixel brightness.

18. (Currently Amended) The OLED display system claimed in claim 1, wherein the control circuit controls the time that voltage or charge is applied to the array of OLED pixels in the OLED display.

19. (Currently Amended) A method for controlling an OLED display device having an array of addressable OLED pixels on a substrate, the OLED pixels having performance attributes, and a control circuit for controlling the array of OLED pixels of the OLED display, comprising the steps of:

~~a) providing one or more OLED pixels;~~

b) providing an additional OLED reference pixel, external to the display device, and located on ~~a~~ the substrate and connected to the control circuit, the additional OLED reference pixel having the same performance attributes as the ~~one or more~~ OLED pixels in the array, the additional OLED reference pixel having a voltage sensing circuit including a transistor connected to one of the terminals of the additional OLED reference pixel for sensing the voltage across the additional OLED reference pixel to produce a voltage signal representing the voltage across the additional OLED reference pixel;

c) measuring the voltage signal to produce an output signal representative of the performance attributes of the additional OLED reference pixel;

d) receiving the output signal, comparing the performance attributes with predetermined performance attributes, and producing a feedback signal in response thereto; and

e) controlling the OLED display in response to the feedback signal by calculating a corrected control signal for controlling the OLED pixels in the array and employing the corrected control signal to control the OLED pixels in the array to thereby compensate for the changes in the output of the OLED pixels in the array.

20. (Currently Amended) The method claimed in Claim 19, further comprising the steps of providing a plurality of additional OLED reference pixels and measuring the outputs thereof.

21. (Currently Amended) The method claimed in Claim 20, wherein the OLED display includes different types of OLED pixels in the array having different performance attributes and the additional OLED reference pixels include a pixel of each different type.

22. (Currently Amended) The method claimed in Claim 19, wherein the types of OLED pixels in the array include pixels of different colors.

23. (Currently Amended) The method claimed in Claim 19, wherein the additional OLED reference pixels include multiple identical pixels whose results are combined whereby the measured performance attribute is more accurately measured.

24. (Currently Amended) The method claimed in Claim 19, wherein the analyzing step includes comparing the additional OLED reference pixel performance attributes to a model of OLED pixel behavior.

25. (Currently Amended) The method claimed in Claim 19, wherein the analyzing step includes comparing the additional OLED reference pixel attributes to empirical data relating to the performance of an exemplary OLED display.

26. (Currently Amended) The method claimed in Claim 19, wherein the analyzing step includes comparing the additional OLED reference pixel attributes to historical reference OLED pixel attribute data.

27. (Currently Amended) The method claimed in Claim 19, wherein the measuring step is performed with a measuring circuit that is integrated on the same substrate as the additional OLED reference pixel.

28. (Original) The method claimed in Claim 19, wherein the analyzing step is performed with an analysis circuit that is integrated on the substrate.

29. (Original) The method claimed in Claim 19, wherein the controlling step is performed by a control circuit that is integrated on the substrate.

30. (Canceled)

31. (Original) The method claimed in claim 19, wherein the controlling step includes controlling the voltage applied to the entire OLED display.

32. (Currently Amended) The method claimed in claim 19, wherein the controlling step includes controlling the voltage applied to groups of OLED pixels in the array on the OLED display.

33. (Original) The method claimed in claim 19, wherein the controlling step includes modifying the response to code values used to represent OLED pixel brightness.

34. (Currently Amended) The method claimed in claim 19, wherein the controlling step includes controlling the time that voltage or charge is applied to the OLED pixels in the array ~~OLED display~~.